

Measuring Treasury Debt and Market Depth

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November, 2023

- US fiscal debt has come back into sharp focus recently
 - COVID-19
 - Industrial policy
 - Inflation
 - Rising interest rates
- Traditional view of the UST market focuses on size, not depth
- Contributions
 - ① Simple sum of USTs is incorrect
 - ② Derivation of user cost of USTs
 - ③ Creation of index to track true aggregate
 - ④ Value of USTs directly impacts fiscal sustainability

USTs are Imperfect Substitutes

Literature

- Krishnamurthy and Vissing-Jorgensen (2012, 2013)
- Nagel (2016)
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- All: the various maturities/types of UTSs have different attributes/purposes

Findings

- Extension of Amihud and Mendelson (1991)
 - Match securities that mature within one day of each other
 - Regress YTM spreads against a variety of factors
- Bills are a liquidity hedge
- Bonds are a savings vehicle
- They should not be linearly aggregated

	Notes–Bills	Bonds–Notes	Bonds–Bills
Relative Bid-Ask Spread	0.4163** (0.173)	0.0981 (0.074)	−0.1424** (0.074)
Coupon Rate Spread	0.0210*** (0.001)	0.0170*** (0.005)	0.0076 (0.013)
10y-2y Spread	0.0234*** (0.003)	−0.0124*** (0.002)	−0.0484 (0.033)
Observations	2250	7430	78
R-Squared	0.207	0.505	0.399
F-statistic	99.48	207.2	20.19